It is in my experience altogether more practicable and efficacious than a solution of crushed suprarenal gland tabloids.

The three cases I report are taken from a large number in which I have used this preparation, and in all with marked improvement.

The cases are chosen because I had previous medical knowledge of each patient; their clinical features are so dissimilar, and the results of previous treatment unsatisfactory.

CASE I.—H., male, 5 years. In May, 1901, falling on a sharp stick held in his hand, the right tonsil was penetrated, making a ragged wound, which would admit the end of a black lead pencil, but was of no great depth. Bleeding was profuse, and the blood, pale brown in colour, did not coagulate. The child an hour after the accident was pallid and inclined to faint. Tr. ferri perchlor. 2 parts and liq. hamamelis 1 part on wool was applied freely and held in position; plugging was impossible, the bleeding being a rapid oozing, it was not possible to ligature any vessels. With local and general treatment, the boy made a good recovery in eight weeks; at first his condition was very critical, with profound anaemia and constitutional disturbance. Latterly he took Hommel's haemato-gen with marked advantage. Some months later he had a severe attack of epistaxis, which was easily controlled by plugs of gauze soaked in adrenalin solution 1 in 1,000.

On September 13th, 1902, he collided with a perambulator, and the pointed end of a brass rod struck him at the middle of the upper orbital ridge on the left side. The mother thought the wound insignificant, and having some adrenalin solution, applied it on linen and, as the bleeding almost at once ceased, did nothing further.

On September 16th, alarming bleeding occurred, and the child was seen by me on September 17th at 1 a.m. The upper and lower left eyelids were swollen and deeply ecchymosed; there was a small irregularly-shaped punctured wound, with edges showing no signs of healing, in the middle of the left eyebrow; from this blood was pouring out in a steady stream. There was little or no coagulative power in the blood. A plug of gauze packed into the wound passed in a downward direction for $\frac{1}{2}$ in., and in no way controlled the haemorrhage; to pack tightly was impossible owing to the situation. I then soaked a piece of double cyanide gauze in adrenalin solution 1 in 1,000, and passed it round the wound, packed in a fresh portion treated in the same manner, and bandaged tightly with a pad over all. In sixteen hours I renewed the plug, and again in another twenty-four. No further bleeding took place, and the wound granulated up in ten days. The boy is a haemophilic, and the history of the two accidents treated by the old and the newer methods is striking.

It is, however, in bleeding from the urinary organs that we expect to find the best results, and experience shows that it is so.

CASE II.—W., male, aged 32 years, suffered from haematuria three years ago. I sent him to Guy's Hospital, when a nephrectomy was performed without any obvious cause being discovered for his trouble. He remained fairly well, with some renal pain but no haematuria until he was revaccinated by a public vaccinator. He had a very bad arm, and on the tenth day there was alarming haematuria; this is interesting, for we know haematuria is sometimes a complication of small pox, and evidently was induced by the vaccination in this case. I immediately gave him 5-minim doses of adrenalin sol. every hour for four hours, and afterwards every two or three hours; the bleeding ceased in twenty-four hours and never returned.

CASE III.—T., male, aged 34, had acute gonorrhoea three years ago, and had eight months' internal treatment without success. I saw him then, and by a combination of injections and internal medication succeeded in improving his condition but could not cure him though I employed every local measure.

On November 21st, 1902, he had a persistent greyish, white discharge of mucous material, occasional pain referred to the point of the penis, and forking of stream of urine on micturition. Catheter No. 9 passed easily to the membranous portion of urethra, then there was conveyed to the hand a sensation of passing through a spongy structure, the instrument was gripped by muscular spasm, but finally passed painfully into the bladder; there were a couple of drops of dark blood in the eye of the catheter on withdrawal. The same instrument was again passed till the point reached well into the prostatic urethra, and then on withdrawal 3ij of a 1 in 8,000 solution of adrenalin chloride was left behind by means of a pipette attached to the catheter; this caused warmth, a little pain which continued for some hours, and was followed by no blood. He was given an injection 1 in 20,000 adrenalin chloride to be used daily; no internal treatment.

On November 28th micturition was less frequent, and there was no scalding, no pain, and the discharge was less. Left in by same means 3ss of a 1 in 1,000 solution. Instrument passed easily, no pain. The injection was given as before, and there was the same feeling of warmth afterwards.

December 12th. Discharge practically ceased; 3ss solution (1 in 1,000) left at seat of trouble. There was a little pain and tingling at the end of the penis. Gave internally 3ss doses of saw palmetto and santal co. three times a day.

June, 1902. He has had no further urethral trouble, gained flesh, and has no discharge whatsoever.

December, 1902. There is now absolutely nothing to be discovered about the urethra; micturition is easy and painless, no discharge.

In this case not only has the eroded mucous membrane been relieved, but an appreciable effect has been exercised upon the stricture itself.

A NOTE ON SOME FURTHER USES FOR PICRIC ACID.

By F. VICTOR MILWARD, M.B.CANTAB., F.R.C.S.,
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THE merits of picric acid in the treatment of burns are now so well known that it is surprising that its use in other surgical conditions has not received greater recognition. The lesions in which it is particularly helpful are those in which the loss of superficial epithelium has produced a raw and painful sore, discharging serum and sero-pus. This "weeping" surface is best seen in acute eczematous conditions, but it is also very noticeable after slight traumatic abrasions. From the length of time that these take to heal, they may easily become infected, and produce a lymphangitis and its sequelae. Picric acid, which is a coagulant and an analgesic, is a simple and effective remedy, and promotes rapid healing. It is best used as a saturated solution, 1 in 95, of distilled water. The rationale of the treatment seems to be the formation of a pellicle of coagulated albumen over the wound, and so the protection of the ruptured superficial lymph spaces and exposed nerve endings.

Should active inflammation be present, there is a danger of confining micro-organisms under the protective coating, and of giving rise to further inflammatory trouble. I have tried picric acid in many lesions, and find that in acute eczema, for instance, where pus is actually present, it is not a suitable remedy. An example of this was the case of a young soldier in whom a wound on the back of the hand had caused an acute eczematous condition to break out. After mopping away all visible pus, I applied picric acid. The result was a lymphangitis and development of a small abscess in the forearm. Picric acid must therefore not be used indiscriminately.

Calvelli¹ claims that it is of use in erysipelas, lymphangitis, eczema rubrum, and erythema; and Allen² speaks of good results in ulceration and eczema of the legs, recent wounds with much loss of skin, and in capillary and haemophilic haemorrhage.

It is, however, to its use in the very minor and trivial cases of loss of superficial epidermis, and in cases of quite superficial infection, that I wish to call attention.

A troublesome affection of the fingers which is especially prone to occur in dressers, house-surgeons, and practitioners who come much into contact with pus, is a peri-onychia affecting the roots of the nails. It usually arises as a redness and tenderness of the soft parts overlying the lunula and sides of the nail. If the free margin of the soft tissue where it extends over the base of the nail be separated from the latter, a bead of pus will exude and a little cavity be discovered, where this has been confined. Wet dressings appear to encourage the suppuration, and dry dressings cause the pus to become still further pent up, until very frequently it will burrow under the very root of the nail and attain its deep surface. Here it is still more difficult to reach. This trouble may be speedily cured by a little attention and the use of picric acid. By the aid of the head of a large needle (a probe is too thick) the soft parts are thoroughly separated from the nail. A few threads from plain white gauze, or a wisp of cotton wool, are then soaked in a saturated solution of the acid, and pushed to the very bottom of the cavity. The soft parts and the root of the nail are thus kept entirely separate by this application, which should be renewed about three times daily. If this is done pain, inflammation, and discharge rapidly subside, and the further destruction of the young nail in its bed by the pyogenic organisms is prevented.

I have also found the remedy to be of use in the treatment of soft corns. Two or three applications will quickly dry them up, and render them painless.

Ingrowing toenail may be successfully treated by excising the offending sharply-pointed corner of the nail which is digging deeply into the ulcerated soft parts. Picric acid freely applied will subsequently harden and render the latter insensitive, and I scarcely ever find it necessary to remove the nail as a whole.

In some cases, that form of eczema known as intertrigo will be greatly benefited by the acid, and I have had particularly good results by applying it to this condition when affecting the interdigital clefts of the toes. It is, however, more suitable for adults than children.

Treatment by dry powders—such as zinc oxide, starch, boric acid, and iodoform—are equally useful in some of these affections, but they have more tendency to form a crust under

which pus will subsequently form. Picric acid has more antiseptic and penetrating qualities, and, if the lesion is quite superficial, will completely rid it of offending organisms. At the same time, unlike other antiseptics, it appears to cause no irritation to the tissues. Its only drawback is the deep staining it produces. When used at all it should be applied very thoroughly, the acid being renewed frequently until the coagulated lymph completely covers the sore. I generally place the well-soaked lint on the wound and cover this with non-absorbent wool or gutta-percha tissue. The dressing may be left on from twelve to forty-eight hours according to the asepticity of the original wound.

These few remarks may possibly suggest the use of this remedy in other and similar lesions.

REFERENCES.

¹ BRITISH MEDICAL JOURNAL, 1899, vol. i, p. 678. ² Ibid., 1897, vol. p. 457.

MANSON'S TROCAR AND CANNULA FOR THE TREATMENT OF LIVER ABSCESS.

BY INSPECTOR-GENERAL ALEXANDER TURNBULL,
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THE three following cases illustrate this method of treating hepatic abscess:

CASE I.—At Hong Kong, early in 1893, a marine officer came under my care convalescent from fever. He was taken ill at Singapore on December 17th, 1892, and on the 19th was jaundiced; he was confined to bed for only a few days, and, as a rule, slept well, and had a good appetite; he stated that his temperature, as a rule, was normal in the day, but rose to 102° in the evening, with sweating.

In January, 1903, he had a rigor, and suffered from hepatic and right shoulder pain; the hepatic region was frequently examined, but with negative results.

On February 6th he left Singapore as a reputed convalescent for Hong Kong, and on the 14th of that month came under my care. His conjunctivae were icteroid, and there was marked enlargement of the liver, with slight tenderness; but the appetite was good, the bowels relaxed, and the tongue clean.

On February 18th fine crepitations were noted immediately below the right nipple, with pain on coughing or laughing.

From February 20th to 26th the bowels were relaxed, the stools bilious, with mucus, partially digested food, and a trace of blood. Friction crepitus was noticed, and a liver dullness slowly ascending, increased hepatic tenderness; his spirits were good, also his appetite, and his tongue clean, but there were night sweats; he was emaciated and wan looking, with variable temperatures, some days normal and sometimes slight fever. Though hepatic abscess was suspected, his *bien-être* and, as a rule, excellent spirits, caused the diagnosis to be thought—even by an expert in liver abscess, who saw the patient with me—to be questionable.

On February 27th the stools were healthy; there were no night sweats, definite hepatic pain or tenderness on percussion, manipulation, or exertion, and convalescence was anticipated.

On February 28th and March 1st the temperature was normal; the following days slight fever recurred in the evening, with anorexia in the morning.

On March 5th he was aspirated in the sixth intercostal space, 2 in. below the right nipple, and an abscess was discovered $1\frac{1}{2}$ in. from the surface, immediately below the friction crepitus area. The operation was followed by severe spasm of the right rectus muscle, and slight febrile disturbance for forty hours, when the temperature became normal, and continued so for two days.

On March 10th the abscess was evacuated by means of Manson's trocar and cannula, with indiarubber drainage tube, and a glass tube inspection-insert some distance down it, draining into an antiseptic solution. The patient's pulse was feeble, but the thirty minutes operation under ether followed by chloroform was borne well. From $1\frac{1}{2}$ to 2 pints of pus were evacuated.

For ten days after the operation there was slight fever, but the patient took nourishment well, slept well, and suffered little or no discomfort; the discharge now appeared as pure bile, about $3\frac{1}{2}$ fluid ounces passing in twenty-four hours. The drainage, I consider, might have been discontinued in this case on the sixth day.

On March 19th the tube was cut and secured close to the surface of the body, dressing antiseptically.

On March 25th the patient sat up in the ward.

On March 29th the drainage tube, previously reduced by replacement with one smaller in calibre, was found in the dressing.

On April 5th the operation wound was healed.

After April 28th there was uninterrupted convalescence, with normal temperature.

On May 3rd he proceeded to England via Japan and Canada, spending some days en route at the Chicago Exhibition. Shortly after his arrival in England he was appointed a gymnasium instructor for the army. In 1897 he proceeded to join the Egyptian forces advancing to Khartoum, was wrecked on passage up the Nile, and suffered considerable exposure, but enjoyed excellent health during those military operations, and subsequently. He has now returned to England in perfect health and has again been appointed gymnasium instructor.

CASE II.—Shortly after treating this patient, a storehouse-man in the Naval Dockyard, Hong Kong, was similarly treated by me; the abscess tapped and drained in a similar manner. The same uncertainty as to the existence of a liver abscess was experienced in this case, and was only removed by exploratory puncture; the patient made an uninterrupted recovery. Strongly advised to quit Hong Kong, he positively refused to abandon his appointment. I saw him in excellent health, as he said, better than for a long time previous to the operation, about a year and a-half afterwards, on my returning to England, and a few years later, Mr. Cantlie left him in Hong Kong in excellent health.

CASE III.—A third case, a naval petty officer, was treated in the same manner with Manson's trocar and cannula, and associated drainage, proceeded, convalescent, to England, and doubtless returned to his duty.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, Etc.

ANTITYPHOID SERUM AS A CURATIVE AGENT.

W. S., aged 28, a farm labourer, was seized on July 14th, 1902, with abdominal pain and sickness. He called in medical aid on July 16th. The symptoms at first pointed to appendicitis, later to generalized peritonitis. But, after a few days of high temperature and noisy delirium, all abdominal tenderness disappeared. The temperature rose gradually to the neighbourhood of 104°, at about which point it remained up till July 26th. He had by this time fallen into a condition by day entirely apathetic, from which he could but be roused to answer questions, though at night he generally woke up to noisy and violent delirium. Having made a provisional diagnosis of enteric fever, and, having had a confirmatory report from the County Council's laboratory based on Widal's test, on July 26th I injected 10 c.cm. of Burroughs and Wellcome's antityphoid serum which I had by me. Next day, being Sunday, I was unable to get more serum from London, but on July 28th I injected another dose of 10 c.cm. After the first dose the temperature fell to 99.8° on the morning of July 27th. The distension of the abdomen, which had been marked for the last two days, had disappeared; he was quite sensible, in marked contrast to his condition for the last seven days. The morning temperature on July 28th was 100°; after a second injection on that day it fell to subnormal, and never afterwards was raised above the normal limits. By August 20th the man was well, though he had not wholly recovered his strength. In confirmation of the reaction to Widal's test the urine was found to show swarms of bacilli having the appearance and character of typhoid bacilli. I finished up by giving him a course of urotropin in the interests of the public health.

This is the fourth case in which I have used antityphoid serum alone, the first one being of average severity. The other three (all of which I have published) have all been desperate cases in which I only used it because there seemed nothing else left to be done. This man would probably have lived in any case, unless one of the unhappy complications of enteric had supervened. Of the other three cases, I am positive (as were all who saw the cases) that the serum was the means of saving two lives; the third case was that of an elderly woman with